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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,042	09/26/2005	Toshihide Murakami	4252-0111PUS1	3626
2292	7590	11/29/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			BRIGGS, NATHANAEL R	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 11/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/518,042

Applicant(s)

MURAKAMI ET AL.

Examiner

Nathanael Briggs

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/16/2004; 3/11/2005
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. Figure 4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneyama, et al. (EP 1058148) in view of Arakawa (US 2002/0005925).**

5. Regarding claims 1 and 5, Kaneyama discloses an optical laminate (see figure 1, for instance) comprising a cholesteric liquid crystal layer (12, 13) and a quarter-wave

plate (2) laminated on the cholesteric liquid crystal layer (12, 13); and wherein Kaneyama teaches that the quarter-wave plate should have minimal variation in thickness (~0%). However, Kaneyama does not expressly disclose wherein the quarter-wave plate has a configuration consisting of the layer A (material having a positive intrinsic birefringence value), the layer B (material having a negative intrinsic birefringence value), and the layer A; or wherein the layer A and the layer B have the same molecular chain orientation.

6. Regarding claim 1, Arakawa discloses a quarter-wave plate (see figure 7, for instance) wherein the quarter-wave plate (50) has a configuration consisting of a layer A (material having a positive intrinsic birefringence value) (52), the layer B (material having a negative intrinsic birefringence value) (54), and the layer A (52); and wherein the layer A (52) and the layer B (54) have the same molecular chain orientation ([0009]).

7. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the quarter-wave plate of Arakawa in the optical laminate of Kaneyama. The motivation for doing so would have been to obtain a quarter-wave plate exhibiting uniform retardation to all incident lights while being fabricated by a simple process, as taught by Arakawa ([0006]). Claim 1 is therefore unpatentable.

8. Regarding claim 2, Kaneyama in view of Arakawa teaches the optical laminate according to claim 1 (see Kaneyama figure 1 and Arakawa figure 7, for instance), and Arakawa further discloses wherein the quarter-wave plate (50) is a quarter-wave plate obtained by stretching a laminate obtained by co-extruding the material having a

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positive intrinsic birefringence value (52) and the material having a negative intrinsic birefringence value (54).

9. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the optical laminate and method of fabrication of Arakawa in the optical laminate of Kaneyama. The motivation for doing so would have been to reduce fabrication costs and simplify the fabrication process, as taught by Arakawa ([0081]).

Claim 2 is therefore unpatentable.

10. Regarding claim 3, Kaneyama in view of Arakawa teaches the optical laminate according to claim 1 (see Kaneyama figure 1 and Arakawa figure 7, for instance), and Arakawa further discloses wherein the material having a positive intrinsic birefringence value (52) is an alicyclic structure-containing polymer resin having a content of a resin component with a molecular weight of 2,000 or less of 5 wt % or less ([0043]).

11. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the laminate and positive birefringence material of Arakawa in the optical laminate of Kaneyama. The motivation for doing so would be to increase light transmittance, heat resistance, dimensional stability and photo-elasticity, as taught by Arakawa ([0043]). Claim 3 is therefore unpatentable.

12. Regarding claim 4, Kaneyama in view of Arakawa teaches the optical laminate according to claim 1 (see Kaneyama figure 1 and Arakawa figure 7, for instance), and Arakawa further discloses wherein the material having a negative intrinsic birefringence value (54) is a vinyl aromatic polymer ([0052]).

13. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the laminate and negative birefringence material of Arakawa in the optical laminate of Kaneyama. The motivation for doing so would be to increase heat resistance, as taught by Arakawa ([0052]). Claim 4 is therefore unpatentable.

14. Regarding claim 6, Kaneyama in view of Arakawa teaches the optical laminate according to claim 1 (see Kaneyama figure 2 and Arakawa figure 7, for instance), and Kaneyama further discloses a polarized light source (4) device comprising the optical laminate (1, 2) according to claim 1. Claim 6 is therefore unpatentable.

15. Regarding claim 7, Kaneyama in view of Arakawa teaches the polarized light source according to claim 6 (see Kaneyama figure 2 and Arakawa figure 7, for instance) comprising a light reflecting layer (41), a light source (42), and the optical laminate (1, 2), wherein the light reflecting layer (41), the light source (42), and the optical laminate (1, 2) are disposed so that light emitted from the light source is incident on the optical laminate (1, 2) from a side of the cholesteric liquid crystal layer (21, 22), and reflected circularly polarized light reflected by the optical laminate (1, 2) is reflected by the light reflecting layer (41) and is incident on the optical laminate (1, 2; [0006]-[0008]). Claim 7 is therefore unpatentable.

16. Regarding claim 8, Kaneyama in view of Arakawa teaches the optical laminate according to claim 1 (see Kaneyama figure 2 and Arakawa figure 7, for instance), and Kaneyama further discloses a liquid crystal display device (6), comprising the polarized light source device (4) according to claim 6. Claim 8 is therefore unpatentable.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathanael Briggs whose telephone number is (571) 272-8992. The examiner can normally be reached on 8:30 AM to 5:00 PM (EST) Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nathanael Briggs  
10/5/2006

  
ANDREW SCHECHTER  
PRIMARY EXAMINER